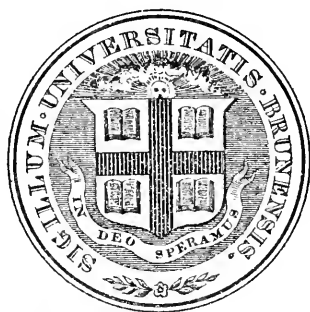


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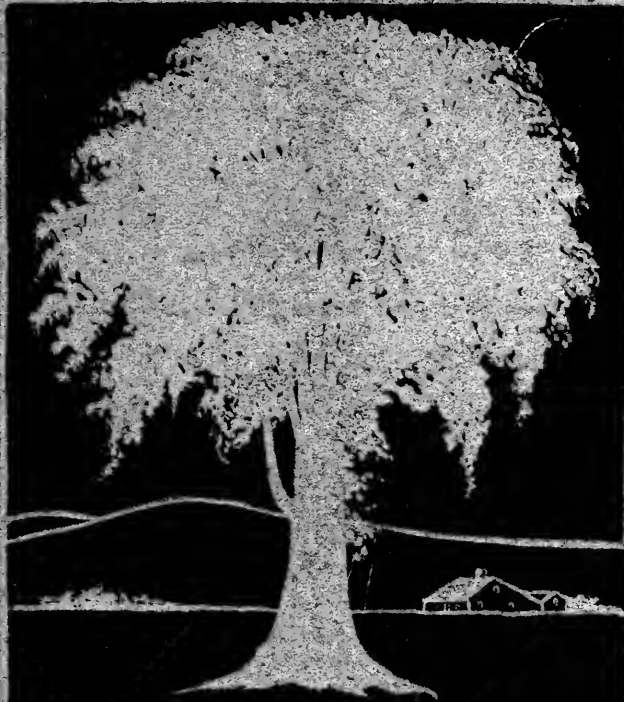
Education Department



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PROVIDENCE, R. I.

ARBOR DAY PROGRAM

DAYS FOR THE BOYS AND GIRLS 1910
OF THE SCHOOLS OF RHODE ISLAND



He that planteth a tree is a servant of God
He provideth a kindness for many generations
And faces that he hath not seen shall bless him

RHODE ISLAND EDUCATION CIRCULARS

NINETEENTH ANNUAL PROGRAM

FOR THE

OBSERVANCE OF ARBOR DAY

IN THE

SCHOOLS OF RHODE ISLAND

MAY 13, 1910

Father, thy hand
Hath reared these venerable columns, thou
Didst weave this verdant roof. Thou didst look
Upon the naked earth, and forthwith rose
All these fair ranks of trees.—*Bryant.*



PREPARED AND DISTRIBUTED BY

THE COMMISSIONER OF PUBLIC SCHOOLS

Department of Education

STATE OF RHODE ISLAND

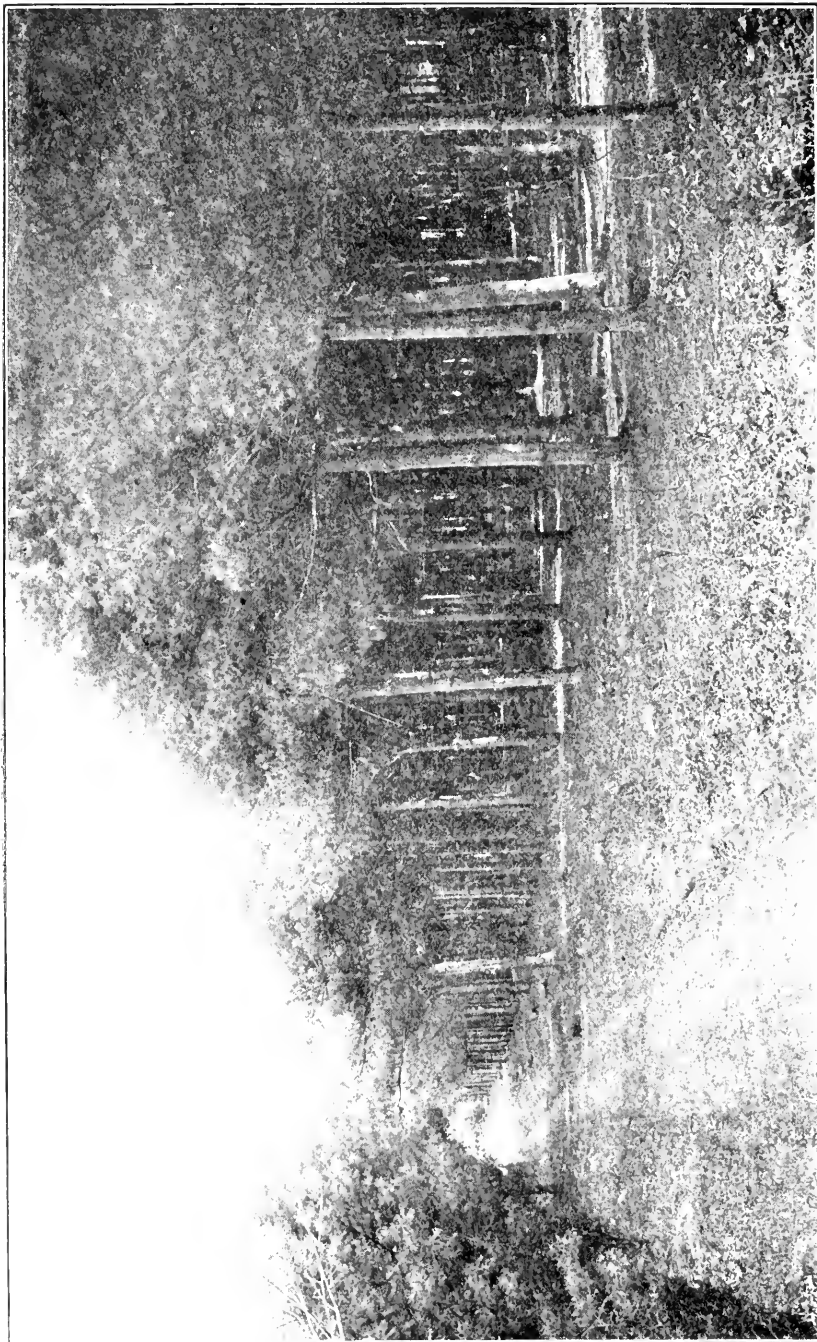


Photo by Dr. Philip B. Hadley, Rhode Island State College.

WHITE PINE, RUSSELL ESTATE, POTOWOMUT, R. I., PLANTED IN 1885.

These trees are twenty feet apart, about twenty-five feet high diameter six to eight inches

STATE OF RHODE ISLAND.
DEPARTMENT OF EDUCATION.

COMMISSIONER'S ARBOR DAY MESSAGE.

To the Boys and Girls of Rhode Island Schools:

Through the kindness of friends I am sending you in these pages many new and interesting things about trees. I am sure that everyone will find pleasure in them, because they will remind him of out-of-door joys, and prompt him to seek new delights among "the green tents" that shelter the forest folk.

In keeping our annual festival of the trees, with all the variety of Arbor Day observance, you are really celebrating the coming of springtime. "For, lo, the winter is past; the flowers appear on the earth; the time of the singing of birds is come." As the trees grow green, as the flowers bloom, as the birds sing more joyously, may you not see the making of a new earth, and hear a silent voice saying: "Behold, I make all things new"?

As a tall tree on a far hilltop beckons to one on a pleasant journey, so the trees, like dear friends, lead us into the knowledge and wisdom and goodness with which the earth is full. You may recall, as I do, the words of Tennyson, which might have been spoken of trees:

"Flower in the crannied wall,
I pluck you out of the crannies,
I hold you here, root, and all, in my hand,
Little flower—but if I could understand
What you are, root and all, and all in all,
I should know what God and man is."

The study of trees or birds or brooks, like all wise study, brings you a knowledge of this wonderful world of ours and makes it your own. As you seek to learn, lo, the truth, beauty, and goodness that fill and enrich the world are knocking at the doors of your hearts, seeking entrance to your lives. From the infinite material of God's universe, admitted through the open doors of your hearts, you are building your lives. In truth, you are all world-builders. Each is building in his heart his own world, with its hills of hope, its mountains of vision, its rivers of love, its fields of goodness, its forests of service. As you plant the oak or maple near school or home, so you may plant in the field or garden of your hearts the tree of kindness or reverence. Such are the trees of life, whose fruit is righteousness.

As your lives gather the riches of life's kingdoms, may you in dutiful service enrich the lives of others. As you seek and find new truth and beauty in the world about you; may you, planting grove or garden, make home or school, park or farm, more useful and beautiful. Rhode Island will indeed grow in beauty when each of its hundred thousand boys and girls, in the spirit of Arbor Day, shall try to make some one spot more beautiful.

Very sincerely yours,

A people without children would face a hopeless future; a country without trees is almost as hopeless; forests that are so used that they cannot renew themselves will soon vanish, and with them all their benefits. When you help to preserve our forests, you are acting the part of good citizens.

If your Arbor Day exercises help you to realize what benefits each one of you receives from the forest, and how by your assistance these benefits may continue, they will serve a good end.

—Theodore Roosevelt.

The observance of Arbor Day may well be broadened somewhat in its scope so as to bear a closer relation to practical forestry, and this without neglecting the literary and æsthetic ends to be attained. I would like to see more attention given to teaching the children our native forest trees, especially those of most commercial importance,—the different species of pine, oak, maple, ash, and hickory.

In this connection they could also be taught something about such interesting topics as plant societies, key trees, soil control, struggle for survival, relation to sunlight, tree diseases, the forest floor, effect of fire on forests, relation of forests to streamflow, and the variation in species in shade producing and shade enduring qualities. Some schools may find it expedient to reserve a corner of the grounds for a small forest nursery,—a bed about four feet wide and any convenient length,—in which to raise nursery stock for planting shade and forest trees on Arbor Day. Such a nursery could be started on Arbor Day by putting into this bed some tiny seedlings, such as may be found at that time under mature trees of beech, maple, oak, ash, pine, and chestnut. Later the nursery could be extended by planting tree-seeds gathered in the following autumn.

—J. B. Mowry, Commissioner of Forestry, State of Rhode Island.

The **MAPLE**, the State Tree of Rhode Island, was chosen by the school children in 1894.

The **VIOLET**, the State Flower of Rhode Island, was chosen by the school children in 1897.

We celebrate this year the **TWENTY-FOURTH BIRTHDAY** of Rhode Island Arbor Day.

ACKNOWLEDGMENT.

In grateful acknowledgement of appreciated services rendered in the preparation of this pamphlet, special thanks are heartily extended by the Commissioner to Mrs. John L. Alger, for compiling and editing material; to Miss Marie S. Stillman, for designing the cover; to Professor J. Franklin Collins, Mr. H. L. Madison, Dr. Philip B. Hadley and Mr. Jesse B. Mowry, for contributions of photographs and important articles.

SUGGESTIVE PROGRAM.

General Theme for Arbor Day, 1910—The Trees of Our Nation and State.

Let every child have some part in the program. Class exercises may be arranged by assigning a brief quotation to each pupil of a class or group. Selections for reading or recitation may be divided among several pupils, each one giving a paragraph or stanza.

SONG. SCRIPTURE. PRAYER. SONG.

ITEMS OF INTEREST ABOUT THE TREES OF OUR NATION AND STATE.

GROUP EXERCISE: "OUR TIMBER SUPPLY" (p. 8).

RECITATION OR READING.

ESSAY: "UNCLE SAM'S FOREST SERVICE."

RECITATION. SONG.

ESSAY: "THE TREES OF THIS TOWN" OR "RHODE ISLAND'S TREES."

CLASS EXERCISE: "THE AMERICAN FORESTS" (p. 18).

SONG. ADDRESSES. PLANTING EXERCISES.

Every tree gives answer to some different mood;
This one helps you, climbing; that for rest is good;
Beckoning friends, companions, sentinels they are;
Good to live and die with, good to greet afar.

—*Lucy Larcom.*

THE LIFT OF THE HEART.

When we stand with the woods around us,
And the great boughs overhead;
When the wind blows cool on our forehead,
And the breath of the pine is shed;
When the song of the thrush is ringing,
Wonderful, rich, apart—
Between the sound and the silence
Comes a sudden lift of the heart.

—*Elizabeth K. Adams.*

SCRIPTURE READING.

For lo, the winter is past, the rain is over and gone.

The flowers appear on the earth; the time of the singing of birds is come.

Oh that men would praise the Lord for his goodness, and for his wonderful works to the children of men.

He sendeth the springs into the valleys, which run among the hills.

He causeth the grass to grow for the cattle and herb for the service of man; that he may bring forth food out of the earth.

Thou shalt not destroy the trees. Thou shalt not cut them down, for the tree of the field is man's life.

Sing, O ye heaven, break forth into singing, ye mountains, O forest and every tree therein.

For as the earth bringeth forth her bud, and as the garden causeth the things that are sown in it to spring forth; so the Lord God will cause righteousness and praise to spring forth before all the nations.

WE THANK THEE.

“For flowers that bloom about our feet;
For tender grass, so fresh, so sweet;
For song of bird, and hum of bee;
For all things fair we hear or see,
Father in Heaven, we thank Thee!

“For blue of stream and blue of sky;
For pleasant shade of branches high;
For fragrant air and cooling breeze;
For beauty of the blooming trees,
Father in Heaven, we thank Thee!”

THOUGHTS OF A NATIONAL FORESTER.

“I never see a little tree bursting from the earth, peeping confidently up among the withered leaves, without wondering how long it will live or what trials or triumphs it will have. I always hope that it will find life worth living, and that it will live long to better and to beautify the earth. I hope it will love the blue sky and the white clouds passing by. I trust it will welcome all seasons and ever join merrily in the music, the motion and the movement of the dance with the winds. I hope it will live with rapture in the flower-opening days of spring and also enjoy the quiet summer rain. I hope it will be a home for the birds and hear their low, sweet songs. I trust that when comes the golden peace of autumn days, it will be ready with fruited boughs for the life to come. I never fail to hope that if this tree is cut down, it may be used for a flagpole to keep our glorious banner in the blue above, or that it may be built into a cottage where love will abide; or if it must be burnt, that it will blaze on the hearthstone in a home where children play in the firelight on the floor.”—*Enos Mills*.

A PSALM OF FRIENDLY TREES.

"I will sing of the bounty of the big trees,
They are the green tents of the Almighty,
He hath set them up for comfort and for shelter.

Their cords hath he knotted in the earth,
He hath driven their stakes securely,
Their roots take hold of the rocks like iron.

He sendeth into their bodies the sap of life,
They lift themselves lightly towards the heavens,
They rejoice in the broadening of their branches.

Their leaves drink in the sunlight and the air,
They talk softly together when the breeze bloweth,
Their shadow in the noonday is full of coolness.

The cedars of Lebanon are fed by the snow,
Afar on the mountain they grow like giants,
In their layers of shade a thousand years are sighing.

How fair are the trees that befriend the home of man,
The oak, and the terebinth, and the sycamore,
The fruitful fig-tree and the silvery olive.

In them, the Lord is loving to his little birds,—
The linnets and the finches and the nightingales,—
They people his pavilions with nests and with music.

He that planteth a tree is a servant of God,
He provideth a kindness for many generations,
And faces that he hath not seen shall bless him."

—*Henry Van Dyke.*

JOHN MUIR'S PLEA FOR THE GIANT TREES OF CALIFORNIA.

"Any fool can destroy trees. They cannot run away; and if they could, they would still be destroyed—chased and hunted down as long as fun or a dollar could be got out of their bark hides, branching horns, or magnificent bole backbones.

Few that fell trees plant them; nor would planting avail much toward getting back anything like the noble primeval forests. During a man's life, only saplings can be grown, in the place of the old trees—tens of centuries old—that have been destroyed. It took more than three thousand years to make some of the trees in these Western woods—trees that are still standing in perfect strength and beauty, waving and singing in the mighty forests of the Sierras.

Through all the wonderful, eventful centuries, God has cared for these trees, saved them from drought, disease, avalanches, and a thousand straining, leveling tempests and floods; but He cannot save them from fools,—only Uncle Sam can do that."

OUR TIMBER SUPPLY.

Exercise for Ten Pupils.

1. The United States has already crossed the verge of a timber famine so severe that its blighting effects will be felt in every household in the land. The rise in the price of lumber which marks the opening of the present century is the beginning of a vastly greater and more rapid rise which is to come. We must necessarily begin to suffer from the scarcity of timber long before our supplies are completely exhausted. It is well to remember that there is no foreign source from which we can draw cheap and abundant supplies of timber.
2. What will happen when the forests fail? In the first place, the business of lumbering will disappear. It is now the fourth greatest industry in the United States. All forms of building industries will suffer with it, and the occupants of houses, offices, and stores, must pay the added cost.
3. Mining will become vastly more expensive; and with the rise in the cost of mining there must follow a corresponding rise in the price of coal, iron, and other minerals.
4. The railways, which have as yet failed entirely to develop a satisfactory substitute for the wooden tie, will be profoundly affected, and the cost of transportation will suffer a corresponding increase.
5. Water power for lighting, manufacturing, and transportation, and the movement of freight and passengers by inland waterways, will be affected still more directly than the steam railways.
6. The cultivation of the soil, with or without irrigation, will be hampered by the increased cost of agricultural tools, fencing, and the wood needed for other purposes about a farm.
7. Irrigated agriculture will suffer most of all, for the destruction of the forest means the loss of the waters as surely as night follows day.
8. With the rise in the cost of producing food, the cost of food itself will rise. Commerce in general will necessarily be affected by the difficulties of the industries upon which it depends.
9. In a word, when the forests fail, the daily life of the average citizen will inevitably feel the pinch on every side.
10. And the forests have already begun to fail, as the direct result of the suicidal policy of forest destruction which the people of the United States have allowed themselves to pursue.

—Gifford Pinchot.

IN RHODE ISLAND.

"In early times, Rhode Island was covered with a virgin forest of remarkable beauty and value, and even now perhaps no other State can show so many species of native trees within an equal area."

"Rhode Island was the fourth in order of the New England States to establish a department of forestry. All these States now have such a department."

"Interesting forest plantations in Rhode Island are on the famous Russell estate, East Greenwich; on the grounds of the R. I. School for Feeble Minded, in Exeter; and the U. S. Government plantation, at Saunderstown."

"In a forest tract about one mile east of Chepachet, R. I., is to be found the largest specimen of White Pine thus far reported standing in North America to-day—a very impressive tree."

—Jesse B. Mowry, Commissioner of Forestry.



Photo, by J. F. Collins.

WHITE PINE, RUSSELL ESTATE, POTOWOMUT, R. I.

Planted in 1892. Diam. 6 to 8 in.

FORESTRY AND CONSERVATION IN RHODE ISLAND.

H. L. Madison, Curator, Roger Williams Park Museum, Providence.

At "The Oaks" at Potowomut, the late Henry G. Russell has given, not only the State, but the nation, one of the best examples of forestry and conservation known in the United States.

Mr. Russell was a native of New Bedford, a business man, and an intimate friend of Thomas P. Ives of the firm of Brown & Ives. He married Hope Brown Ives, Mr. Ives's sister, in 1864, and thus assumed the active management of Mrs. Russell's estate, which consists of approximately 560 acres with about two miles of coast line along the east shore of Greenwich bay. When Mr. Russell assumed charge of the estate, there were numerous oaks and cedars growing native along the banks, and Mr. Ives had planted elms, maples, horse-chestnuts, spruces, and arbor vitae, about the farm.

Mr. Russell began to plant trees as a recreation which rapidly developed into a "hobby." Only those who knew him and were associated with him know the hours of pleasure spent by him among the trees he planted, tended, and watched grow into tapering evergreens or spreading maples and elms.

Beginning in 1874, trees were planted almost every year until 1895. These have been set in groups or clumps, about the lawns, and along the banks of the shore. A belt of trees about 125 feet wide, extending the whole length of the shore line, serves as a wind-break, improves the appearance of the bay, and utilizes land not suitable for cultivation. Along

the extreme northern portion of the shore there is land which is very sandy and useless except for growing trees. Much of the land where trees have been planted, however, is reasonably good soil and will produce good crops. In recent years a private drive has been blazed through this shore belt, giving one frequent glimpses of the bay and then carrying one into the cool and aroma of pine and fir.

It is unfortunate that no authentic record was kept of Mr. Russell's work. A brief record, given me by my father, George W. Madison, who has been in charge of the estate since 1875, and has been able to recall with considerable accuracy the facts about the plantings should be of interest here.

In 1874, a few maples and spruces were planted.

In 1876-1877-1878, two groves of white pine, lying west and north of Mr. Russell's residence, were planted.

In 1877-1878, 60,000 small larches were purchased and set in nursery rows from which they were distributed along the shore banks during the next four years.

A year or two later, a carload of 30,000 white pine were planted between the larches and soon topped the larches. Most of the larches have been cut down and used for fire-wood and today only a few can be found scattered among the pines.

In 1881-1882, many bushels of white-oak acorns, from trees on the estate, were planted among the pines and larches. From these acorns have sprung thousands of young oaks which are destined to outlive by many years the pines which tower above them. This practice of planting acorns was continued almost every year until 1895.

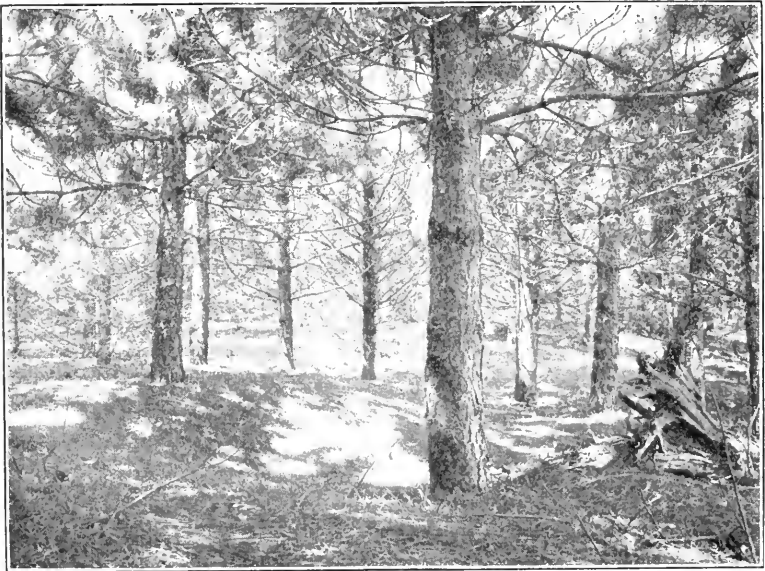


Photo. by J. F. Collins.

RED PINE, RUSSELL ESTATE, POTOWOMUT, R. I.

Planted about 1885

About 1885 the first red pines were procured of Dr. Sargent, of Brookline, Mass., and planted in groups in the most exposed places along the bay. It is worthy of note that these red pines have all done well, while a number of Austrian pines, set a year or two before, have not been a success. The reason is the red pine has no dangerous insect enemies, while the Austrian pine is beset with a destructive root borer.

On what is nothing but a sand heap at the extreme northern boundary of the estate, at the most exposed point, in 1885-1886, ailanthus trees were planted. Later pines, larches and oaks were added. All have done well. The ailanthus have been cut out, but the others are still standing.

In 1890, 10,000 white pines were planted along the bay, just north of Long Point. In 1891, 15,000 white pines were planted still farther north on sandy ground. In 1892, 24,000 white pines were planted on a hillside northeast of those just mentioned. These two lots were raised from seed on the estate.

About 1890, 24,000 Douglas spruce (fir), with some Colorado blue spruce, were planted in nursery rows and transplanted about the estate from year to year. These are said to be the first Douglas fir ever sent east.

There have been, of course, other kinds of trees planted and the estate is rich in many varieties of deciduous and evergreen trees. It will be seen that there must have been many hundred thousands of trees planted on the estate within the short space of thirty



Photo. by J. F. Collins.

DOUGLAS FIR, PLANTED IN 1890, ON RUSSELL ESTATE, POTOWOMUT, R. I.

"The first Douglas Fir ever sent east."

Planted in 1890.

years, and thousands of them are now standing—the largest evergreens reaching a height of 40 feet.

The method of planting, although varying, consisted essentially in setting the young trees in rows fairly close together and then thinning as they began to demand more room. If a number of different kinds were together and were crowding each other, the general rule has been to prefer a pine to a larch, a spruce to a pine, and an oak above all others. It was always a source of great pleasure for the owner to wander through the trees each fall and “bark” with his hatchet the trees to be cut out during the winter.

It will be seen that only one lot of larches was purchased and this at the beginning; the reason being that the larch will grow under almost any conditions, and hence afforded protection for the young pines. But it is neither long-lived nor good for timber and was, therefore, cut down as soon as the pines became fully established. Again many white pines were planted, Mr. Russell believing that they were best adapted to all conditions of soil and exposure. Many, however, are infested with an insect borer which injures the “leader” at the top and makes the tree unfit for the best grade of lumber.

The oaks were planted among the other trees, that they might have protection, and as the tree that would outlive all the others. In years to come, these young oaks will grow into grand old trees like their ancestors, which are now scattered about the estate.

NOTE.—*The Russell Estate can be reached by electric to East Greenwich, and a row-boat across Greenwich Bay.*



Photo. by J. F. Collins.

COLORADO BLUE SPRUCE AMONG NATIVE CEDAR.

Planted in 1890, on Russell Estate, Potowomut, R. I.

ONE OF UNCLE SAM'S FORESTERS.

(The following is compiled from "Wild Life on the Rockies," a book of unusual value, written by Enos A. Mills, who was, for more than twenty years, a Rocky Mountain guide. He served for some time as Snow Observer in Colorado, and is now in the U. S. Forest Service. The chapters of especial interest in connection with Arbor Day are "The Story of a Thousand Year Pine," "Kinnikinnick," "The Lodge Pole Pine," "Rocky Mountain Forests," "Mountain Parks and Camp Fires.")

"One winter I walked on snowshoes on the upper slopes of the Rockies from Wyoming nearly to the New Mexico line. This was a long walk, and it was full of amusement and adventure. Most of the way was on the crest of the continent, sometimes I would descend to the level of seven thousand feet, and occasionally I climbed some peak that was fourteen thousand feet above the tides. The tracks and records in the snow made a daily newspaper for me. They told much of the news of the wilds.

"Along the way were extensive areas covered with the ruins of fire-killed trees. Most of the forest fires which had caused these were the result of carelessness. The timber destroyed by these fires had been needed by thousands of home-builders. These fire ruins preyed upon me, and I resolved to do something to save the remaining forest. The opportunity came shortly.

"Two days before reaching the end of my journey my food gave out, and I fasted. But as soon as I reached the end I started to descend the heights, and knocked at the door of the first house I came to, and asked for something to eat. I supposed I was at a pioneer's cabin. A neatly dressed young lady came to the door; through the half-open door behind her came the laughter of children, and a glance into the room showed this to be a mountain school house. My appearance alarmed the teacher, who was recently from the East and mistook me for a Western desperado. After explanations I was admitted and provided with a luncheon to which the teacher and each one of the six school-children contributed. When I finished eating, I made my first after-dinner speech; it was also my first attempt to make a forestry address. One point I tried to bring out was concerning the destruction wrought by forest fires. Among other things I said 'During the past few years, in Colorado, forest fires, which ought never to have been started, have destroyed many million dollars worth of timber. The area that the fires have burned would put on the equator an ever-green-forest belt one mile wide, that would reach entirely around the world. Along with this forest have perished many of the animals and thousands of beautiful birds who had homes in it!'"

"Since the day of 'Pike's Peak or Bust,' fires have swept over more than half of the primeval forest area in Colorado. Some years ago, I endeavored to find out the cause of these fires. Most of them were the result of carelessness. There are few worse things to be guilty of than carelessly setting fire to a forest. Most of these forest fires had their origin from camp-fires which the departing campers had left unextinguished.

"Fires have made the Rocky Mountains still more rocky. In many places the fires burn their way to solid rock. In other places, the vegetable mould is partly consumed by fire, and the remainder is in a short time blown away by wind or washed away by water. The fires often not only consume the forests, but destroy also the food upon which the new forests might have fed. It will probably require several hundred years for nature to re-soil and reforest some of these fire-scarred places."

"Everyone ought to be on terms of personal affection with some noble tree. It is a friendship worth cultivating."

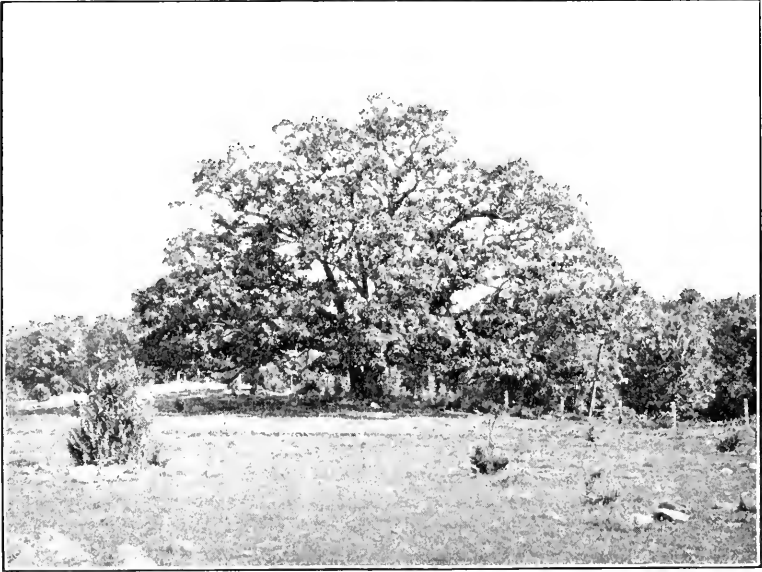


Photo. by J. F. Collins.

WHITE OAK, STILLWATER, R. I.

17 ft. 8 in. circumference; 90 ft. spread.

WHO KNOWS WHERE THE LARGE TREES GROW IN RHODE ISLAND?

Have you, boys and girls, ever thought, when you were walking through the country, village, or even city, that much more real pleasure might be derived from such walks if you had some definite reason for critically observing certain trees which you encountered? Any one who has ever walked with some such object in view need not be told of the keen satisfaction experienced when it is realized that a new tree acquaintance has been made. Have you ever realized the pleasure of getting acquainted with the trees of your vicinity? Have you ever realized the fascination of hunting for the veterans? If you have not, I advise you to try it.

Here is a suggestion and a proposition. Suppose we exchange notes in regard to the large trees. If you have no notes at the present time, perhaps you can get some during the coming season. When you see a large tree, measure its girth at the standard height of four and a half feet (called by foresters "breast high"). Be careful that the tape or string does not sag on one side. If, at the standard height, there is some abnormal swelling or depression, the measurement should be made just above or below this point, and the height of the measurement and the girth recorded. Make a record of the location after the manner indicated below, together with the date of the record. If you do not know the name of the tree, send a leafy twig (and fruit or flowers, if possible) to the undersigned, together with a copy of the record, and a postal card or stamp for reply. He may be able to help you. In case several specimens are sent at the same time, each one, together with its corresponding record, should receive a distinctive number. It is a good



Photo by J. F. Collins.

SWAMP WHITE OAK, WEST OF MANTON, R. I.

plan to collect two specimens of each tree, retaining one yourself for reference when the return postal is received.

In order to begin this exchange of notes, I will tell you of some of the large Rhode Island trees that I know about.

WHITE PINE. In a shallow ravine about one mile east-northeast of **Chepachet** village, and southeast of a roadside cranberry bog, on the farm of Mr. Andrew J. Steere. Girth in 1907, 13 feet $\frac{1}{2}$ inch.

HOP HORNBEAM. In woods south of the Hartford turnpike, less than $\frac{1}{8}$ of a mile west of the point where the Danielson car line leaves the highway in **Pocasset**. Girth, 2 feet 3 inches. Normally a very small tree.

AMERICAN CHESTNUT. By roadway, a few rods north of the Mineral Spring road, perhaps $\frac{1}{4}$ mile east of **Centerdale**. Girth, 19 feet 9 inches.

Does anybody know of a larger tree of any kind in R. I.?

WHITE OAK. About $\frac{1}{2}$ mile north of **Stillwater**, west of the railroad. Girth, 17 feet 8 inches. Another in **North Providence**, in an open field, about $\frac{1}{2}$ mile southeast of **Fruit Hill Reservoir**. Girth, 16 feet 10 $\frac{1}{2}$ inches.

SWAMP WHITE OAK. Four near the Hop Hornbeam mentioned above. One on the south side of road with a girth of 7 feet, 9 inches. Three on the north side, with girths of 7 feet 6 $\frac{1}{2}$ inches, 6 feet 10 inches, 6 feet 6 $\frac{1}{2}$ inches, respectively.

RED OAK. By the railroad south of **Ashland**, **Seituate**. Girth, 16 feet, 1 $\frac{1}{2}$ inches.

PIN OAK. Roadside north of **Burdickville**, **Hopkinton**. Girth, 8 feet 2 inches.

BLACK OAK. Shore of **Washington Pond**, **Edgewood**, **Cranston**. Girth, 11 feet 9 inches.

TULIP TREE. On the "Andrew Sheldon farm," **Dugaway Hill** road, west of **Knightsville**, **Cranston**. Girth in 1903, 5 feet up, 15 feet 6 inches. Group just west of **Old Simmonsville**, **Johnston**, largest with a girth of 9 feet, 5 $\frac{1}{2}$ inches.



Photo. by J. F. Collins.

WHITE OAK, FRUIT HILL, NORTH PROVIDENCE.

16 ft. 10½ in. circumference.

SASSAFRAS. Six trees beside the main road, south of **Crescent Park**. Girths, 8 feet 5 inches, 7 feet 9 inches, 7 feet 7½ inches, 7 feet 2 inches, 7 feet, 6 feet 10 inches. Another in "The Dell" at the east end of **Wentworth avenue**, **Edgewood**, with a girth of 6 feet 9½ inches.

BUTTONWOOD. North of the road, just east of **Butterfly Factory**, **Lincoln**. Girth, 16 feet 10 inches.

BLACK CHERRY. **Butler Hospital** grounds, **Providence**, a few rods east of the main entrance. Girth, 6 feet 6 inches.

TUPELO. Two north of the road near the **Hop Hornbeam** mentioned on page 15, with girths of 5 feet 11 inches and 5 feet 4 inches.

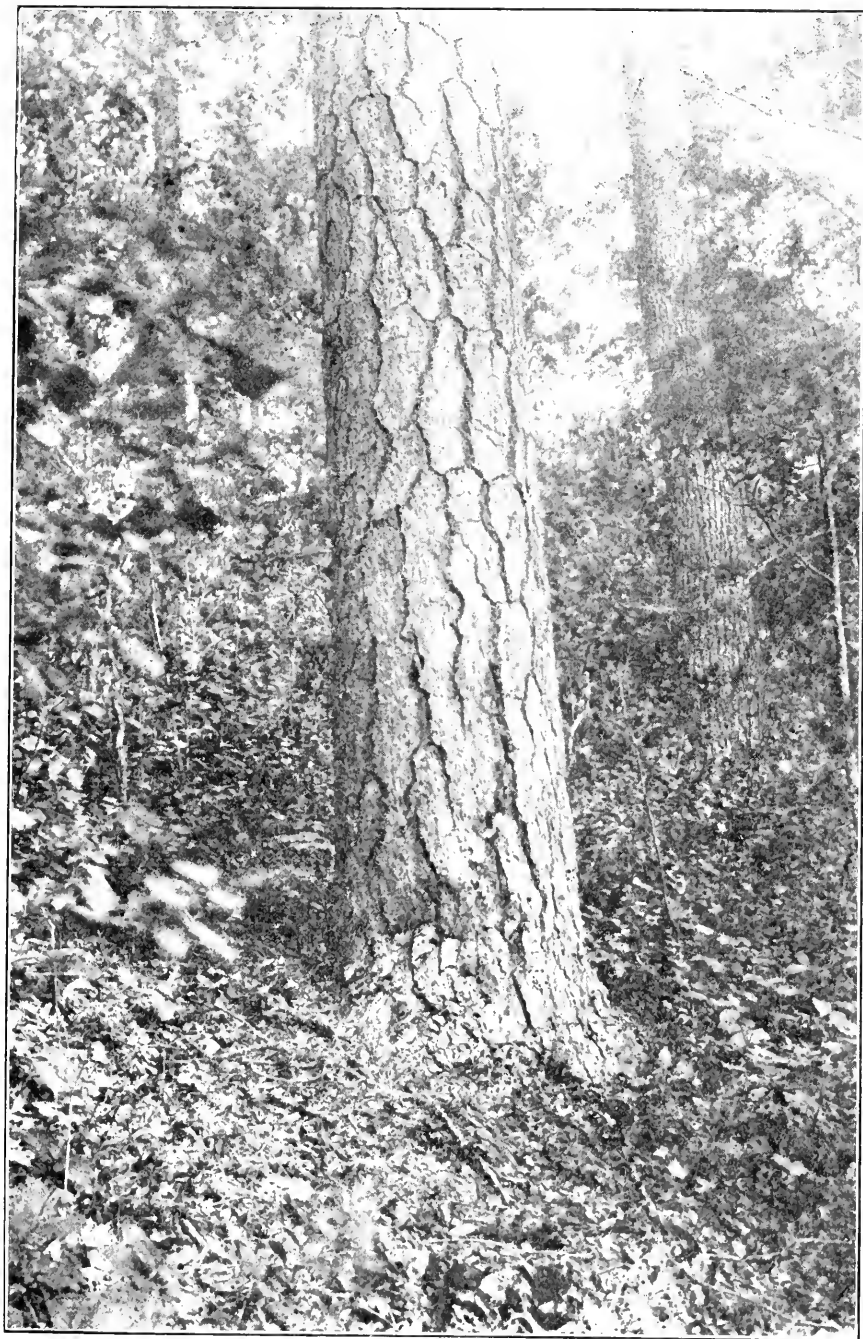
WHITE ASH. Corner **Rochambeau avenue** and **Blackstone boulevard**, **Providence**. Girth, 11 feet 1 inch. Another with exactly the same girth in a yard on the south side of the road near the **Buttonwood** mentioned above.

J. FRANKLIN COLLINS, **Brown University**.

A FAMOUS RHODE ISLAND ELM.

In "The Autocrat of the Breakfast Table," **Oliver Wendell Holmes** describes his first view of the great elm which stood near the **Ochee Spring** in **Johnston**, "Rhode Island—a small but delightful state in the neighborhood of **Pawtucket**." . . . "All at once I saw a great, green cloud swelling on the horizon, so vast, so symmetrical, of such Olympian majesty that my heart jumped at my ribs as a hunter springs at a five barred gate." . . . "It is a grand elm for size of trunk, spread of limb, and muscular development—one of the first, perhaps the first, of the first class of **New England Elms**."

NOTE—This tree was blown down about twenty-five years ago. Has any one a picture of it?



The oldest Pitch Pine in Rhode Island, 100 feet in height, and 30 inches in diameter on the stump, growing in **CHEPACHET**.

From Report of Commissioner of Forestry, 1908

THE AMERICAN FORESTS.

Arranged for a Class Exercise.

1. The forests of America, however slighted by man, must have been a great delight to God; for they were the best He had ever planted. The whole continent was a garden, with the largest, most varied, most fruitful, and most beautiful trees in the world.
2. Bright seas made its border, gray deserts were outspread in the middle of it, mossy tundras on the north, savannas on the south, and blooming prairies and plains; while lakes and rivers shone through all the vast forests and openings, and happy birds and beasts gave delightful animation. Everywhere, everywhere, over all the blessed continent, there were beauty, and melody, and kindly, wholesome, foodful abundance.
3. These forests were composed of about five hundred species of trees, all of them in some way useful to man, ranging in size from twenty-five feet in height and less than one foot in diameter at the ground, to four hundred feet in height and more than twenty feet in diameter,—lordly monarchs proclaiming the gospel of beauty like apostles.
4. For many a century after the ice-plows were melted, nature fed them and dressed them every day; working like a man, a loving, devoted, painstaking gardener; fingering every leaf and flower and mossy furrowed bole; bending, trimming, modeling, balancing, painting them with the loveliest colors; bringing over them now clouds with cooling shadows and showers, now sunshine; fanning them with gentle winds and rustling their leaves; exercising them in every fibre with storms, and pruning them; loading them with flowers and fruit, loading them with snow; and ever making them more beautiful as the years rolled by.
5. The Indians, with stone axes, could do them no more harm than could gnawing beavers and browsing moose. But when the steel axe of the white man rang out their doom was sealed.
6. In the settlement and civilization of the country, bread more than timber or beauty, was wanted; and in the blindness of hunger, the early settlers, claiming Heaven as their guide, regarded God's trees as only weeds, extremely hard to get rid of.
7. Accordingly, with no eye to the future, these destroyers waged forest wars; chips flew thick and fast; trees in their beauty fell crashing by millions, smashed to confusion, and the smoke of their burning has been rising to heaven more than two hundred years.
8. After the Atlantic coast, from Maine to Georgia, had been mostly cleared and scorched into ruins, the multitude of bread and money seekers, poured over the Alleghenies into the fertile Middle West, spreading devastation ever wider and farther over the rich valley of the Mississippi and the vast, shadowy pine region about the Great Lakes.
9. Thence still westward the invading horde of destroyers, called settlers, made its fiery way over the broad Rocky Mountains, felling and burning more fiercely then ever, until at last it has reached the wild side of the continent, and entered the last of the great aboriginal forests on the shores of the Pacific.
10. Surely, then, it should not be wondered at that lovers of their country, bewailing its baldness, are now crying aloud: "Save what is left of the forests!" Every other civilized nation in the world has been compelled to care for its forests, and so we must if waste and destruction are not to go on to the bitter end, leaving America as barren as Palestine or Spain.

—John Muir *the noted naturalist, in whose honor the primeval redwood forest near San Francisco, Cal., has been named "The Muir Woods."*

"It was said of old regarding the naval power of England, that the man who really laid the foundation of England's dominion on land and sea was old John Evelyn, who planted the oaks out of which England's ships were made a century later."

THE OAK TREE.

A gentleman once stood before an oak tree, pondering deeply. Nine miles from the coast of Cornwall lay some dangerous rocks on which many a brave ship had been wrecked. Twice a lighthouse had been erected upon them, and twice destroyed. On what plan could he build a new one which should stand firm through storm and tempest? The oak tree stands for hundreds of years; branch after branch may be broken off but the trunk remains firm. Many others are torn up by the roots, but never the oak. Mr. Smeaton wondered if it was the peculiar shape, the broad base and curving waist that made this tree so strong. He went away, and in 1759, the new Eddystone lighthouse was built, broad at the base and sloping upwards like the trunk of the oak tree, and it stands firm to this day.

—Mrs. Dyson.

CONSERVING THE OAK.

In view of the waning hardwood supply, it is highly desirable to encourage the growth of our native oaks,—the white, black, and red oaks,—timber trees of the first rank. There has been during the past ten years a decrease of about one-half in the nation's output of oak. At the present rate of consumption, the supply of hard woods will be exhausted in a few years; and when the supply of the Eastern States is gone, there will be no other source to which to turn. Without oak for the varied uses to which it is put, we should be in sad straits indeed.

Now this is an oak-growing State, the climate and soil being adapted to the tree, which ranks second among our lumber-producing trees,—white pine ranking first. Time was when Newport, Warren, Bristol, and other coast settlements made Rhode Island famous as a ship-building colony, and this extensive business was established on the basis of a heavy growth of white oak near at hand. In 1739, more than 100 vessels were owned in Newport. Several warships of the Revolution were of Rhode Island build.

"The monarch oak, the patriarch of the trees,
Shoots rising up and spreads by slow degrees.
Three centuries he grows, and three he stays
Supreme in state, and in three more decays."

—Jesse B. Mowry, *Commissioner of Forestry.*

THE FOREST LESSON.

In order to reforest a part of the Adirondacks, it has been found necessary to import a million young trees from Germany.—Newspaper item.

The throb of the ax in the forest went on through a nation vast,
Like a fevered heart that is beating in measure that's all too fast;
We gave carte blanche to the woodman, and none stayed the vandal hand,
And now, to replant our forests, we must send to the Fatherland.

The sawmill shrieked in the mountains, and the sound was borne on the breeze,
O'er the crash of the falling giants as they splintered the smaller trees,
And all that was left was silence, where whispered the forests grand—
And now, to repair the mischief, we must send to the Fatherland.

We have gained some industrial captains—of lumber monarchs, a few—
But somehow they don't quite balance the damage that such chaps do;
There's naught to make up for those barrens where wantonness set its brand,
In these days when for forest seedlings we must send to the Fatherland.

—Arthur Chapman.

THE FATHER'S GIFT.

In the little house in a bare field lived a father and his three sons. When it was time for this father to go on a long journey, he called his oldest son to him. "My son," he said, "I give the little money I have to you." And to the next he called—"My son, I give to you my watch," and to his youngest son he said, "My son, my little John, I give this to you," and the father dropped something small and hard in the little boy's hand.

The father said good-bye, and left his sons to go on a long journey.

When little John opened his hand, he thought he would surely find a piece of money, but no,—the little hard brown thing in his hand was not money. John did not know what it was. He showed it to his oldest brother. He looked at it and shook his head. He showed it to his next brother. He looked at it and shook his head. "I wonder what it is," thought little John. "My father loved me, he would not give me anything that was not good,—but what shall I do with it? I cannot hold it in my hand, and if I put it in my pocket I might lose it." Just then he heard a voice very far off—"Bury it in the ground." John looked around, but he saw no one. Again came the voice, nearer, "Bury it in the ground." John looked around and up and down, but still he saw no one. Again came the voice, this time right in his ear, "Bury it in the ground." John jumped up, ran out into the field, and just in front of the little house he dug a hole, dropped in the little hard, brown thing, covered it up carefully and then started out with his big brothers who were going to seek their fortunes in the big world.

Many, many years afterwards, when John was a little boy no longer, but a big, tall man he thought of the little house in the bare field and he thought of his father's gift and wondered if it were still buried in the ground.

So one beautiful spring day, he started out to find the little house, and when he came near it, what do you think was the first thing he saw? Not the little house, not the barn field, but a great tree with many smaller trees close by. And do you know the big tree was just on the spot where John buried his father's gift?

Oh! it was a lovely tree, spreading its broad branches, shading the little house and making the bare field green and beautiful; giving shelter to the birds who were singing merrily, and flitting from bough to bough. Underneath, little children were sitting with great bunches of clover in their laps, making clover chains, and away up among the topmost branches sat a squirrel dreaming of the good times he would have when the nuts were ripe.

And John, resting in its cool shade said, "Oh, my father's gift was a good one,—the best gift of all."

And do you know what the father's gift was?

—Susan P. Speed.

NOTE TO TEACHERS: *This story is appropriate for telling in kindergarten and lowest primary grades, where the children will enjoy illustrating it by drawings, free hand paper cutting, and by acting in pantomime. Children a little older can use it for a reading lesson, for language reproduction, illustration, pantomime, and original dramatization. It is also suitable for a class or individual story-telling exercise on Arbor Day.*

ARBOR DAY.

Why do we study trees to-day
And plant them near and far away?
In groves and fields, in homes of all
We plant the oak, and elm tree tall.

We plant these trees, and those who live
In after years may also give
The same to others, that they may know
The help and beauty that in trees grow.

THE BROKEN WING.

In front of my pew sits a maiden—
 A little brown wing in her hat,
 With its touches of tropical azure,
 And the sheen of the sun upon that.

Through the colored pane shines a glory,
 By which the vast shadows are stirred,
 But I pine for the spirit and splendor
 That painted the wing of that bird.

The organ rolls down its great anthem,
 With the soul of a song it is blent;
 But for me, I am sick for the singing
 Of one little song that is spent.

The voice of the preacher is gentle:
 "No sparrow shall fall to the ground;"
 But the poor broken wing on the bonnet
 Is mocking the merciful sound.

—*Selected.*

DO APPLE SEEDS POINT UP OR DOWN?

When teacher called the apple class, they gathered round to see
 What question deep in apple lore their task that day might be.
 "Now tell me," said the teacher, to little Polly Brown,
 Do apple seeds grow pointing up, or are they pointing down?"
 Poor Polly didn't know, for she had never thought to look
 (And that's the kind of question you can't find in a book.)—
 And of the whole big Apple class not one small pupil knew
 If apple seeds point up or down! But then, my dear, do you?

—*Carolyn Wells in St. Nicholas.*

A LEGACY.

Item. I give to the fathers and mother in trust for their children, all good little words of praise and encouragement and all quaint pet names and endearments, and I charge said parents to use them justly and generously as the needs of their children may require.

Item. I leave to the children inclusively but only for the term of their childhood all and every one, the flowers of the field and the blossoms of the woods with the right to play among them freely according to the customs of children, warning them at the same time against thistles and thorns. And I devise to children the banks of the brooks and the golden sands beneath the waters thereof, and the odors of the willows that dip therein and the white clouds that float high over the giant trees. And I leave the children the long, long days to be merry in a thousand ways, and the night and the morn and the train of the milky way to wonder at.

Item. I devise to boys jointly all the useful idle fields and commons where ball may be played, all pleasant pools where one may swim, all snow-clad hills where one may coast and all streams and ponds, where one may fish, or where, when grim winter comes, one may skate, to have and to hold the same for the period of their boyhood. And all the meadows with the clover blossoms and butterflies thereof, the woods and their appurtenances, the squirrels and birds and echoes and strange noises, and all distant places which may be visited together with the adventures there found. And I give to said boys, each his own place at the fireside at night, with all pictures that may be seen in the burning wood, to enjoy without let or hindrance and without any incumbrance of care.

Item. To our loved ones with snowy crowns I bequeath the happiness of old age and the love and gratitude of their children until they fall asleep.

From the "Will of Charles Lounsberry."

A FEW TYPICAL RHODE ISLAND TREE WALKS.

BY PROFESSOR J. FRANKLIN COLLINS, BROWN UNIVERSITY.

I. IN THE LINCOLN WOODS OF THE METROPOLITAN PARK SYSTEM.

Distance, from two to three miles. Starting point, Quinsnicket station on the Providence and Woonsocket electric car line. Route, eastward along Break Neck Hill Road for about one-third of a mile to the first entrance to the reservation, south along the park road to the first left-hand path (100 to 300 feet) which leads to the head of Quinsnicket Lake (the park road from the second entrance also leads to the head of the lake), thence along the south side of the lake, glen, and brook, to the highway. From the glen there is no path. One wishing to keep to the regular paths, should cross to the north side of the outlet at the foot of the lake and take the path at the great ledge which goes eastward for a short distance and then northward to the highway. On the highway go eastward to the Prospect Hill electric car line.

If this route is somewhat altered in detail the trees seen may not correspond with the list given below, though there will probably be only a few changes in the way of additions or deductions.

Either along the road or in the reservation the following named trees or tree-like shrubs may be seen, though not in the order mentioned:

White Pine, Norway Spruce, Hemlock, Arbor Vita, Willow (probably two species), American Aspen, Large-toothed Aspen, Carolina Poplar (Cottonwood), Butternut (White Walnut), Shell-bark Hickory, Mockernut, Hop Hornbeam, American Hornbeam, Black Birch, Gray Birch (commonly improperly called White Birch), American Beech, American Chestnut, White Oak (one about one-third of a mile east of the Butterfly Factory, back of a barn on a lane north of the highway, measures 13 feet 4 inches in circumference, breast high), Swamp White Oak, Red Oak, Scarlet Oak, Black Oak (one tree near the glen with a large burl high up on the trunk), American Elm, White Mulberry, Sweet Bay, Tulip Tree (the last two in a yard on the highway east of the Butterfly Factory) Sassafras (many seedlings and saplings in the reservation), Spice Bush, Buttonwood, (sometimes improperly called Sycamore; one very large tree about one-quarter mile east of the Butterfly Factory, and just north of the highway, measures 16 feet 10 inches in circumference, breast high), Juneberry, Black Cherry, Honey Locust, Common Locust, Rock Maple (Sugar Maple), Red Maple, American Basswood, European Linden, Flowering Dogwood, White Ash.

II. IN NORTHERN CUMBERLAND.

Distance, about four miles. Starting point, Diamond Hill station, on the N. Y., N. H. & H. R. R. Route, eastward on highway at crossing, south on first road for one-quarter to one-third mile to convenient place to leave road and walk through the woods or fields to the summit of the north end of the hill. Return to station by the same or a somewhat different route, as may be preferred, thence south on highway to old road to quarry, westward to quarry. Return to station.

Trees arranged roughly in the order they may be seen. A few shrubs included in the list.

American Elm, White Pine, Red Maple, Gray Birch, Black Birch, Black Cherry, Smooth Sumach, Bitternut, Choke Cherry, Black Oak, American Aspen, Scrub Oak, Large-toothed Aspen, American Chestnut, Maple-leaved Arrowwood, White Oak, Hazel Nut, Juneberry, White Birch (Canoe Birch), American Beech, Witch Hazel, Scarlet Oak,

Pitch Pine, Flowering Dogwood, Hop Hornbeam, Red Cedar, Dwarf Juniper, Butternut, Common Locust, Rock Maple, Sassafras, Shell-bark Hickory, Red Oak, Spice Bush, Buttonwood, Yellow Birch, Buckthorn, Tupelo (Sour Gum), Rock Chestnut Oak.

III. IN WASHINGTON COUNTY, THROUGH PORTIONS OF THE TOWNS OF RICHMOND, CHARLESTOWN, HOPKINTON, AND WESTERLY.

Distance, seven and one-half miles. Starting point, railroad station at Wood River Junction, in the town of Richmond. Route, eastward along the railroad to the Pawcatuck river and back to the station, thence westward for about one-quarter mile to the railroad crossing, south on highway for nearly a mile (crossing the Pawcatuck river into Charlestown, and passing through the western edge of the Indian Cedar Swamp), turning sharply to the west at the first fork in the highway, at the south edge of the swamp, up the hill for half a mile to where the road swings sharply to the southward. Half a mile south of this point again take the road which leads directly west down the hill for five-eighths of a mile to the railroad bridge. A mile beyond the railroad the highway crosses the Pawcatuck river into Hopkinton and turns north for one-quarter mile through Burdickville, then gradually swings round to the southwest for more than a mile. Take the first left-hand road (this starts first southeast for 100 to 200 yards then turns directly south, crossing the Pawcatuck river into Westerly) for a mile to Niantic Station. From the railroad station walk, southwest along the track for half a mile, through the first swamp, and back to the station. If this last stretch along the railroad is omitted, the entire trip will be shortened to six and one-half miles. If the first stretch along the railroad from Wood River Junction to Pawcatuck river and return is also omitted (thus omitting all walking along the railroad track), the entire distance will be further reduced by seven-eighths of a mile.

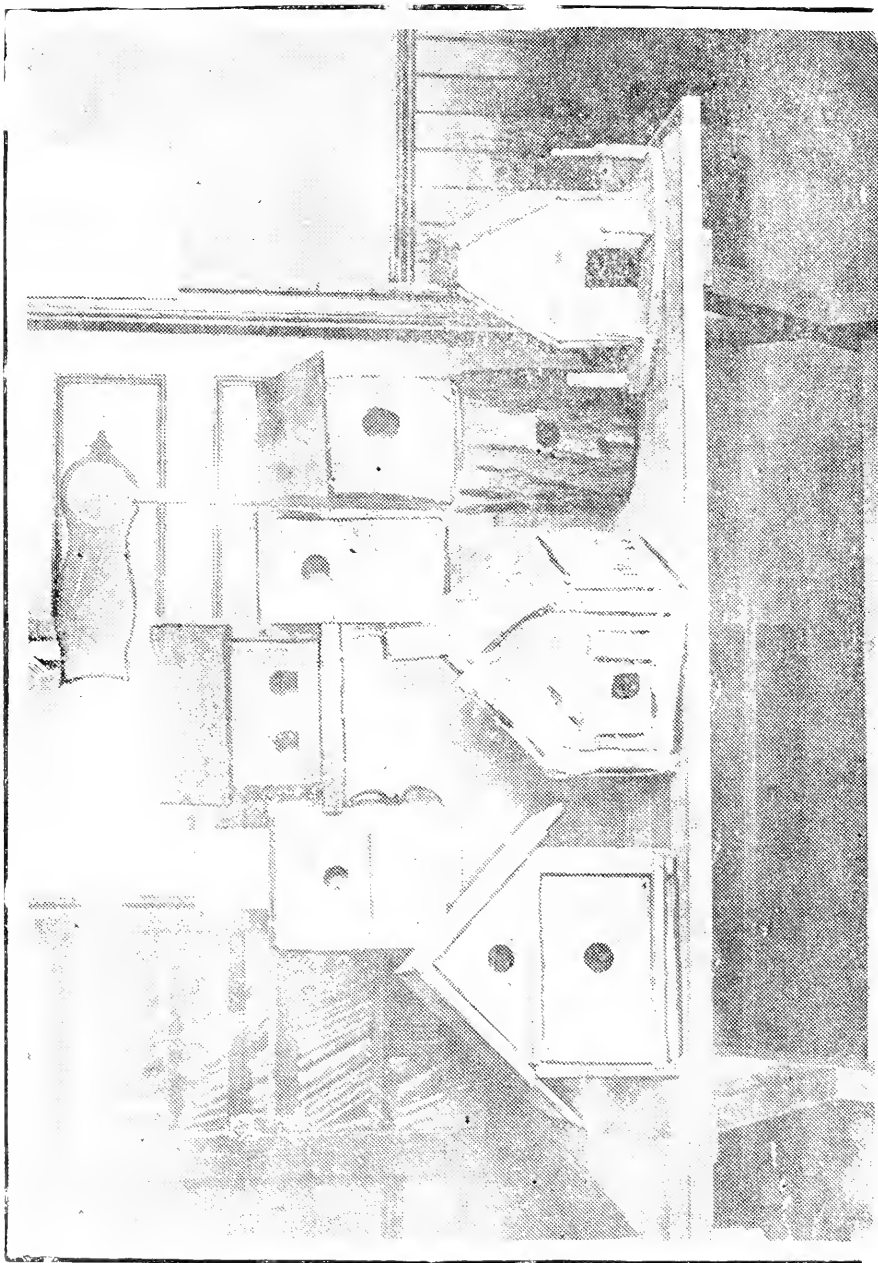
The following named trees may be seen on this trip:

In **RICHMOND**: Red Maple, Gray Birch, Pin Oak, American Chestnut, Mockernut, Sassafras, Pitch Pine, Scrub Oak, American Aspen, Hazel Nut, Juneberry, Red Cedar, Poison Sumach, Buttonwood, White Maple, Norway Maple, Rock Maple. Just before crossing the river into the town of Charlestown two good-sized Pin Oaks may be seen, the larger measuring five feet eleven inches in circumference, breast high.

In **CHARLESTOWN**: Pin Oak, Alder, Black Cherry, Red Maple, Gray Birch, Balm of Gilead, Pitch Pine, Juneberry, White Oak, White Pine, Scrub Oak, Hazel Nut, Coast White Cedar, Tupelo, Holly, Poison Dogwood, White Ash, Tree of Heaven (Chinese Sumach), Buttonwood, Sassafras, Mockernut, Large-toothed Poplar, Mountain Laurel, Alternate-leaved Dogwood, Black Oak, American Aspen, Flowering Dogwood, Witch Hazel, Swamp White Oak, Scarlet Oak, Pignut, Chinquapin Oak, Smooth Sumach, American Chestnut, Bitternut, Butternut, Scarlet Oak, Yellow Birch, Common Locust, Red Cedar, Dwarf Sumach, Hop Hornbeam, Red Ash.

In **HOPKINTON**: Red Ash, Scrub Oak, Black Cherry, Buttonwood, Pin Oak (one at north edge of Burdickville, measures eight feet two inches in circumference), Red Maple, Gray Birch, Hazel Nut, American Aspen, White Oak, Butternut, Flowering Dogwood, Sassafras, Black Oak, American Hornbeam, Smooth Sumach, Chinquapin Oak, Scarlet Oak, Buckthorn, Red Cedar, American Elm, Juneberry, Honey Locust, Balm of Gilead.

In **WESTERLY**: Juneberry, Alder, Red Maple, Pin Oak, Black Cherry, White Oak, White Ash, White Maple, Common Locust, Norway Spruce, Tulip Tree, American Elm, Gray Birch, Pitch Pine, Poison Dogwood, White Pine, Tupelo (Sour Gum), American Aspen, Scrub Oak, Cock-spur Thorn, Scarlet Oak, Black Ash.



From the Providence Journal.

BIRD BOXES MADE BY QUIDNICK SCHOOL CHILDREN, 1909.

RHODE ISLAND SCHOOL CHILDREN PROVIDE HOMES FOR THE BIRDS.

With the intention of helping the birds of the Pawtuxet Valley in keeping house, the children of the Quidnick school have been putting in some of their spare time during the spring building bird houses. On Arbor Day the results of their industry made a formidable display at the school.

Various inexpensive materials were employed in the manufacture of these houses, and the architectural results were pleasing to the eye and doubtless attractive to the birds. At any rate, the enterprise had the merit of interesting the pupils of the Quidnick school in nature study. Since their exhibition the houses have been put up in various likely spots.

—*Providence Journal, May, 1909.*

WITHOUT !

“Without the birds there would be no forest trees.

Without the trees there would be no water.

Without birds, trees, and water—industry, commerce, and even life itself, must cease.”

THE BLOODLESS SPORTSMAN.

I go a-gunning, but take no gun;
 I fish without a pole;
 And I bag good game, and catch such fish
 As suits a sportsman's soul;
 For the choicest game that the forest holds,
 And the best fish of the brook,
 Are never brought down with a rifle shot,
 And are never caught with a hook.

The woods were made for the hunters of dreams,
 The brooks for the fishers of song;
 To the hunters that hunt for the gunless game
 The streams and the woods belong.
 There are thoughts that moan from the soul of the pine,
 And thoughts in a flower bell curled;
 And the thoughts that are blown with the scent of the fern
 Are as new and as old as the world.

So away! for the hunt in the fern scented wood
 Till the going down of the sun;
 There is plenty of game still left in the woods
 For the hunter who has no gun.
 So away! for the fish by the moss-bordered brook
 That flows through the velvety sod;
 There are plenty of fish still left in the streams
 For the angler who has no rod.

—*Sam Walter Foss.*

HOW THE WOODPECKER KNOWS.

How does he know where to dig his hole,
 The woodpecker, there on the elm-tree bole?
 How does he know what kind of a limb
 To use for a drum, and to burrow in?
 How does he find where the young grubs grow—
 I'd like to know?

The woodpecker flew to a maple limb,
 And drummed a tattoo that was fun for him,
 "No breakfast here! It's too hard for that,"
 He said, as down on his tail he sat,
 "Just listen to this: rrrr rat-tat-tat."

Away to the pear tree, out of sight,
 With the cheery call and a jumping flight,
 He hopped around till he found a stub,
 "Ah, here's the place to look for a grub.
 'Tis moist and dead—rrrr rub-dub-dub."

To a branch of the apple, Downy hied,
 And hung by his toes to the under side,
 "'Twill be sunny here in this hollow trunk;
 Its dry and soft, with a heart of punk.
 Just the place for a nest—rrrr runk-tunk-tunk."

"I see," said the boy. "Just a tap or two,
 Then listen as any bright boy might do;
 You can tell ripe melons and garden stuff
 In the very same way—its easy enough."

—*William J. Long.*

WHAT THE LITTLE BIRD SAID.

"Where would we build our pretty nests,
 If never a tree in the whole land stood?
 Where would we hang our cradles up
 To rock our dear little baby brood?
 "In the cracks of the bark on the good old trees
 We find the insects we like to eat;
 And the green leaves crowded on branch and twig
 Shelter us from the sun's fierce heat.
 "Little girl, little boy," the birdie sang,
 As he spread his bright wings to fly away,
 "If you truly love your feathered friends,
 Plant trees for the birds on Arbor Day."

—*Virginia Baker.*

TREES IN THE CITY.

But rising from the dust of busy streets,
 These forest children gladden many hearts;
 As some old friend their welcome presence greets
 The toil-worn soul, and fresher life imparts.
 Their shade is doubly grateful when it lies
 Above the glare, which stifling walls throw back;
 Through quivering leaves we see the soft blue skies,
 Then happier tread the plain unvaried track.

—*Alice B. Neal.*

WHERE TO FIND SEVENTY DIFFERENT KINDS OF TREES IN THE CITY OF PROVIDENCE.

By PROFESSOR J. FRANKLIN COLLINS, Brown University.

The writer is constantly being asked as to where certain species of trees may be seen in, or about, Providence. This article is written with the idea of giving information of this nature, in a concise form, so that those who wish to become better acquainted with any particular species may know, within narrow limits, where at least one such tree can be seen. This is not intended to be a complete directory to all the species of trees known to grow in the city, yet it is believed to include all that are common, as well as a few that are of special interest, though rare or uncommon.

For the sake of brevity, a few localities only (often only one) will be indicated for each species, even though it may be found in abundance within the city. For a similar reason certain special abbreviations will be used. The list is arranged systematically.

Explanation of abbreviations used:—RWP, Roger Williams Park; BP, Blackstone Park; BH, Butler Hospital Grounds; SP, Swan Point Cemetery; MBG, Metcalf Botanical Garden Grounds, corner Sessions street and Morris avenue; NBC, Narragansett Boat Club House, over the Seekonk river, north of Red Bridge; cor., corner; n., north; e., east; s., south; w., west; ne., northeast; se., southeast; sw., southwest; nw., northwest.

1. **GINKGO.** Three fine ones in yard nw. cor. Aborn and Washington Sts.; young ones in front of Public Library, also along boulevard at SP; one a short distance e. of Deming Memorial, RWP.
2. **WHITE PINE.** Steep bank n. of NBC; about 30 yds. n. of summer house on e. shore of lake opposite band stand, RWP; another 8 yds. s. of this summer house; several nw. of museum, RWP; several about the main buildings BH; several in ravine BP.
3. **PITCH PINE.** Steep bank n. of NBC; woods sw. of NBC; a single tree at w. edge of the small bog hole just nw. of NBC; numerous trees in animal yard w. of menagerie, RWP.
4. **AUSTRIAN PINE.** In yard nw. cor. Keene and Hope Sts.; in yard s. side of Waterman St., w. of Cooke; front yard of Morris Heights School, Morris Ave.; yard of 101 Prospect St.; several in RWP, s. of main carriage gate on Elmwood Ave.; by fence sw. cor. old SP.
5. **SCOTCH PINE.** Four ne. of n. gate, Elmwood Ave., RWP.
6. **EUROPEAN LARCH.** One about 56 yds. n. of sw. cor. MBG, and 3 yds. inside Morris Ave. fence, and another 8 yds. se. of this one; two on Cushing St., in yard ne. cor. Prospect St.; one on w. side of Tobey St., n. of Westminster.
7. **COLORADO BLUE SPRUCE.** Three small ones in yard w. side of Thayer St., n. of Bowen; small one in yard nw. cor. Olney St. and Arlington Ave.; several in RWP, BH, and SP.
8. **NORWAY SPRUCE.** Front yard of Morris Heights School, Morris Ave.; yard e. side of Butler Ave., n. of South Angell St.; yard ne. cor. Elmwood Ave. and Plenty st.; RWP; BH; "South Path" to car line, SP

9. **HEMLOCK.** Grotto, BH; ravine, BP; numerous small ones between Betsey Williams Cottage and the Casino, RWP.
10. **ARBOR VITAE.** One clump close to Morris Ave. fence, 66 yds. n. of sw. cor. of MBG; another 9 yds. farther n.; a row running n. on n. side of Rochambeau Ave., nearly opposite the n. end of Cole Ave.
11. **RED CEDAR.** BH, s. of main road to office, e. of bridge; four on n. side of Hazard Ave., e. of Morris Ave.; several between menagerie and Betsey Williams Cottage, RWP; five by pond near bridge n. of Deming Memorial, RWP.
12. **WILLOW** (apparently *Crack Willow*). Large trees by pond, near school gardens RWP.
13. **ABELE** (*White Poplar*). Two in RWP, s. of Elmwood Ave. waiting room.
14. **CAROLINA POPLAR** (*Cottonwood*). Row on s. side of lane, w. from Hope St., s. of Pleasant; two (and one Lombardy Poplar) on e. side of Benefit St., at head of Thomas St.; one 25 to 30 yds. se. of summer house on e. side of lake, opposite band stand, RWP.
15. **LOMBARDY POPLAR.** Several on e. side of Hope St., n. of Doyle Ave.; one on se. cor. Thayer and Angell Sts.; several in yard on e. side of Brown St., n. of Charles Field; row on either side of Catalpa road, n. of Ivy St.; row on n. side of Manning St., e. and w. of Brook.
16. **AMERICAN ASPEN.** Small one in parkway nw. of car station, SP; others in woods w. of there.
17. **LARGE-TOOTHED ASPEN** Small one in parkway nw. of car station, SP; steep bank on River road, s. of ravine, BP.
18. **BLACK WALNUT.** Two on s. side of Cypress St., w. of Ivy; one e. of Deming Memorial. RWP; large one cor. Broadway and Aborn St.
19. **MOCKERNUT HICKORY.** Woods w. of bog hole s. of NBC.
20. **BITTERNUT HICKORY.** On e. side of Arlington Ave., s. of President Ave.
21. **HOP HORNBEAM.** Ravine in BP, near Butler Ave.; grotto, BH.
22. **AMERICAN HORNBEAM** (*Blue Beech*). Grotto, BH; yard s. of terminus of Hartford Ave. car line; several near Scarlet Oak mentioned on pg. 29.
23. **BLACK BIRCH** (*Sweet Birch*). Near s. edge of bog hole s. of NBC.
24. **YELLOW BIRCH** (*Silver Birch*). Near w. end of grotto, BH; woods near Cole Ave., n. of Sessions St.
25. **GRAY BIRCH.** Near Elmwood Ave., s. side of old lake, RWP; woods w. of SP.
26. **CUT-LEAVED BIRCH.** Front yard nw. cor. Hope St. and Doyle Ave.
27. **AMERICAN BEECH.** Fine trees in grotto, BH.
28. **PURPLE-LEAVED BEECH.** Yard n. side of Angell St., e. of Brown; about 45 yds. e. of sw. cor. MBG, and 15 yds. inside fence on Sessions St.
29. **FERN-LEAVED BEECH.** Near shore n. of Dyer Memorial Fountain, RWP.
30. **WEeping BEECH.** Near shore w. of Dyer Memorial Fountain, RWP.
31. **AMERICAN CHESTNUT.** Many in woods s. and sw. of museum, RWP; a large one n. of Casino, RWP.
32. **WHITE OAK.** Several s. and se. of bog hole s. of NBC; one on n. side of Observatory Ave., first tree e. of Hope St.; large one on e. side of Arlington Ave., s. of President.
33. **ENGLISH OAK.** Overhanging e. sidewalk at 101 Benefit St., between Howland and Church Sts.
34. **SWAMP WHITE OAK.** On s. side of Sessions St., near Cole Ave.; several in woods near Scarlet Oak, mentioned on pg. 29.
35. **RED OAK.** In ravine, a few rods e. of Butler Ave., BP; in parkway Blackstone Boulevard. s. of Rochambeau Ave.

36. **PIN OAK.** Fine tree about 20 yds. nne. of summer house on e. shore of lake, opposite the band stand, RWP; several others near by.
37. **SCARLET OAK.** In woods about $\frac{1}{4}$ mile e. of Hope St. and about 150 yds. n. of Roehambeau Ave.
38. **BLACK OAK.** Large tree on n. side of Observatory Ave., e. of Hope St., (this tree is labelled "Scarlet Oak"); several s. of bog hole s. of NBC.
39. **SCRUB OAK.** Less than one-quarter mile ne. of the cor. of Roehambeau Ave. and Hope St., by path leading to SP.
40. **AMERICAN ELM.** The principal tree on Brown University campus; many fine trees about the city, especially along the older streets; a large one on Cemetery St., e. of the Moshassuck River, another at the junction of Branch Ave. and North Main St., and another at Prospect Terrace.
41. **ENGLISH ELM.** Two fine trees in front yard of 54 College St.
42. **HACKBERRY.** Several trees in low land s. of Fort Independence, Fields Point.
43. **WHITE MULBERRY.** Large tree just s. of Betsey Williams Cottage, RWP.
44. **MAGNOLIA.** Several Japanese and Chinese varieties about the city. One in yard ne. cor. Brown and Angell Sts.; one on w. side of Broad St., e. of Stewart.
45. **TULIP TREE.** In front yard w. side of Hope St., s. of Doyle Ave.; n. side of George St., w. of Prospect; se. cor. of yard on ne. cor. Prospect and Cushing Sts.
46. **SASSAFRAS.** In woods n. of Sessions St., w. of Cole Ave.; several others near fence at top of bank s. of grotto, BH.
47. **SWEET GUM.** By bridge w. of boat house, RWP.
48. **BUTTONWOOD.** Grotto, BH; ravine, BP; s. of Betsey Williams Cottage, RWP; e. sidewalk on Arlington Ave., n. of President; w. side of Arlington Ave., n. of Irving; w. side of Pratt St., s. of Jenekes.
49. **ENGLISH HAWTHORN.** Overhanging sidewalk nw. cor. Waterman and Prospect Sts.
50. **BLACK CHERRY.** Fine tree e. of main entrance, about half way to the woods, BH; others in the woods mentioned.
51. **EUROPEAN MOUNTAIN ASH (Rowan Tree).** On w. side of Cooke St., s. of Angell; tree nearly dead at se. cor. Brook and Waterman Sts.
52. **KENTUCKY COFFEE TREE.** Two near the Deming Memorial, RWP, one about ne., the other more e. or se.
53. **HONEY LOCUST.** Several in yard on s. side of lane e. of Hope St., s. of Doyle Ave.; six on w. side of Arlington Ave., between Irving and Humboldt Aves.; one on ne. cor. South Angell St. and Butler Ave.; one in yard ne. cor. Brown and Power Sts.; one in yard 66 Benefit St.; one close to wall on s. side of Bowen St., e. of Brown; several on e. side of Elmwood Ave., near Whitmarsh and Daboll Sts.
54. **YELLOW WOOD.** One a short distance e. or ese. of Deming Memorial, RWP; a few w. of pond, BH.
55. **COMMON LOCUST.** Several on s. side of Roehambeau Ave., w. of Blackstone boulevard; a few at n. end of bridge n. of Casino, RWP.
56. **TREE OF HEAVEN (Ailantus).** Several small ones in back yard of house nw. cor. Thayer and George Sts., overhanging the back driveway of Brown University; larger one in yard cor. Parade and Wood Sts.
57. **AMERICAN HOLLY.** Planted about boulevard entrance to SP.
58. **STRIPED MAPLE (Moose Maple).** One e. or se. of Deming Memorial, RWP.
59. **ROCK MAPLE (Sugar Maple).** Hope Reservoir yard, overhanging the s. sidewalk of Olney St., second tree w. of Hope; several e. side of Brown St., n. of Waterman.
60. **WHITE MAPLE (Silver Maple).** Several on n. side of Jenekes St., e. of Benefit; large one in front yard on s. side of Barnes St., e. of Brown.

61. **RED MAPLE.** Large tree w. edge of bog hole s. of NBC; s. shore of lake near Elmwood Ave., RWP; a yellowish flowered variety on se. cor. Brown and Waterman Sts.
62. **NORWAY MAPLE.** Three fine trees in church yard n. side of Church St., e. of North Main; several on e. side of Hope St., in front of the Bronson School and the Hope St. High School; a long row on the w. side of North Main St., at North Burial Ground; a red leaved form by the lake nw. of museum, RWP.
63. **SYCAMORE MAPLE (European Sycamore).** Old tree on w. side of Hope St., s. of Howell; several other smaller trees on the same side of Hope St. between Doyle and Carrington Aves.
64. **BOX ELDER.** On e. side of Blackstone boulevard, just n. of main entrance to BII; n. side of Olney St., w. of Hope.
65. **COMMON HORSECHESTNUT.** Yard e. side of North Main St., n. of Meeting; large tree in yard, nw. cor. Brown and Power Sts.; large tree se. cor. Benefit and Jenckes Sts.; Many on n. side of Bowen St., between Hope and Prospect Sts.
66. **EUROPEAN LINDEN.** Several on e. side of Prospect St., between Waterman and George Sts.; many fine trees along Benefit St. and the w. ends of Cushing and Angell Sts., also the lower end of Broadway.
67. **TUPELO (Black Gum, Sour Gum).** Small tree 6 inches or more in diameter, about 10 yds. n. of the isolated Pitch Pine at the bog hole just nw. of NBC.
68. **WHITE ASH.** Large tree at the junction of Blackstone boulevard and Rochambeau Ave.; in yard on n. side of Jenckes St., cor of Pratt.
69. **EUROPEAN ASH.** On n. side of Mount Ave., e. of Cole Ave.; close to the Sessions St. fence of MBG, at e. edge of tree plantation.
70. **CATALPA.** In front yard on w. side of Prospect St., between Halsey and Creighton Sts.; several w. of the merry-go-round in RWP; several on n. side of Cypress St., both sides of Catalpa road.



Photo by J. F. Collins.

LARGE CHESTNUTS, NORTH PROVIDENCE.

Injuries caused by pounding trees with rocks to bring down nuts

HELPS FOR TEACHERS.

The Rhode Island Audubon Society offers the following loan material for free use in the schools. This material is designed to aid teachers in interesting the children of Rhode Island in the native birds and to show their important service to the plant life of this region.

I. TRAVELLING EXHIBIT BOXES, 18 x 22 inches, showing the economic value of birds with reference to injurious insects.

Each box contains one or more stuffed birds and mounted specimens of the insects which the birds destroy. There are also typewritten study notes, printed bulletins, and other helps to be found in the boxes.

There are twelve boxes, as follows:

- | | |
|--|--------------------------------|
| 1. Robin, Wood Thrush, Blue bird, | <i>Click-beetle.</i> |
| 2. Chickadee, Brown Creeper, White-breasted Nuthatch, | <i>Cankerworm.</i> |
| 3. Phoebe, | <i>Tussock Moth.</i> |
| Cedar Waxwing, | <i>Elm-leaf Beetle.</i> |
| 4. Baltimore Oriole, | <i>Brown-tail Moth</i> |
| Myrtle Warbler. | <i>Grape-vine Louse.</i> |
| 5. Rose-breasted Grosbeak, Song Sparrow, Tree Sparrow, English Sparrow, | <i>Potato Beetle.</i> |
| 6. Barn Swallow, Chimney Swift, Nighthawk, <i>Common Mosquito and Malarial Mosquito.</i> | |
| 7. Blue Jay, Grackle, | <i>Apple Tent Caterpillar.</i> |
| 8. Yellow-billed Cuckoo, Scarlet Tanager, | <i>Gipsy Moth.</i> |
| 9. Meadowlark | <i>Cutworm.</i> |
| 10. Downy Woodpecker, Hairy Woodpecker, Flicker, | <i>Pine Sapporer.</i> |
| 11. Sharp Shinned Hawk, Red-shouldered Hawk, Barred Owl, | <i>Field Mouse</i> |
| 12. Bob-white | <i>Grasshopper.</i> |

II. TRAVELLING LIBRARIES.

Eleven collections containing about thirty books each upon birds and nature study. Each library is indexed and carries full directions for its use.

III. TRAVELLING LECTURE.

One descriptive lecture on our common birds of Eastern United States, with fifty colored lantern slides for illustration. A portable lantern will be furnished if desired.

The above material will be loaned for from three weeks to two months, according to the demand.

Application for the lecture should be made to Miss Alice W. Wilcox, Secretary, 165 Prospect St., Providence, R. I.; or for libraries only, to Mrs. John H. Cady, Librarian, 127 Power St., Providence, R. I.; or for exhibit boxes, to Mrs. Alice Hall Walter, 53 Arlington Ave., Providence, R. I.

THE ROGER WILLIAMS PARK MUSEUM.

May loan material, such as mounted birds, minerals, woods, and lantern slides, to the schools of Providence.

Will make collections of study material for any school in the State.

Will give talks, at the museum, to any school or grade in the State, on any natural history subject. Request two days ahead. Stereopticon used usually.

Will take schools or grades about the park for identification of the common trees.

Will answer questions on natural history by mail, or will identify specimens (if in hand).

H. L. Madison, Curator.

USEFUL REFERENCE BOOKS.

Rhode Island Arbor Day Pamphlets, Nos. 1 to 19.
 Reports Rhode Island Commissioner of Forestry.
 Native Trees of Rhode Island, Russell.
 Nature Study and Life, Dr. Hodge.
 Guide to Trees and Shrubs of New England, E. Knobel.
 Familiar Trees and their Leaves, F. S. Matthews.
 A Guide to the Trees, Alice Lounsberry.
 Our Native Trees, Keller.
 Stories of the Trees, Dyson.
 Commercial Forest Trees of Mass., D. A. Clarke.
 Trees that Every Child Should Know, Julia Rogers.
 First Book of Forestry, Roth.
 Ten Common Trees, Susan Stokes.
 Our Trees, how to Know Them, C. M. Weed.
 Arbor Day, Shaufler.

UNITED STATES FORESTRY BULLETINS.

The publications listed below are of special value to the people interested in forestry. Copies may be obtained free of charge by addressing "The Forester," United States Department of Agriculture, Washington, D. C.

Circular 35: Forest Preservation and National Prosperity.

Circular 36: (Fourth edition). The Forest Service: What it is and how it deals with Forest Problems.

Circular 96: Arbor Day.

Circular 140: What Forestry Has Done. (Status of Forestry in various foreign countries.)

Circulars 54-77, 82-95, and 106. Forest Planting leaflets.

Farmers' Bulletin 173: A primer of Forestry. A Reprint of Bulletin 24, Part I.

Circular 97: The Timber Supply of the United States.

Circular 130: Forestry in the public schools. Forest Service.

Circular 171: The Forests of the United States, and their use.

Sylvacal Leaflets: Descriptions of individual species.

THE TREE'S FRIENDS.

1. "Oh, the tree loves me," sang the ti - ny flow'r, "For he shades me all the day,
 2. "Oh, the tree loves me," sang the hap - py bird, "My nest on his might - y arm
 3. "Oh, the tree loves me," sang the lit - tle child, "For he gives me blos - soms sweet,

From the sun's fierce heat or the pelt - ing rain, And con - tent at his feet I stay."
 Is fast - ened safe, and my ba - bies rock In their cra - dle safe from harm,"
 Then the sun shines warm on his la - den boughs Till the ripe fruit drops at my feet."

From "Songs of the Child World."

ARBOR DAY SONG.

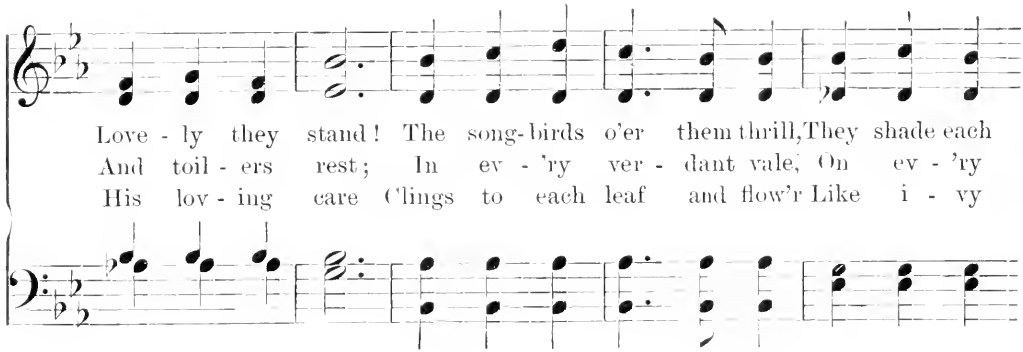
S. F. SMITH.

GEO. EDGAR OLIVER.

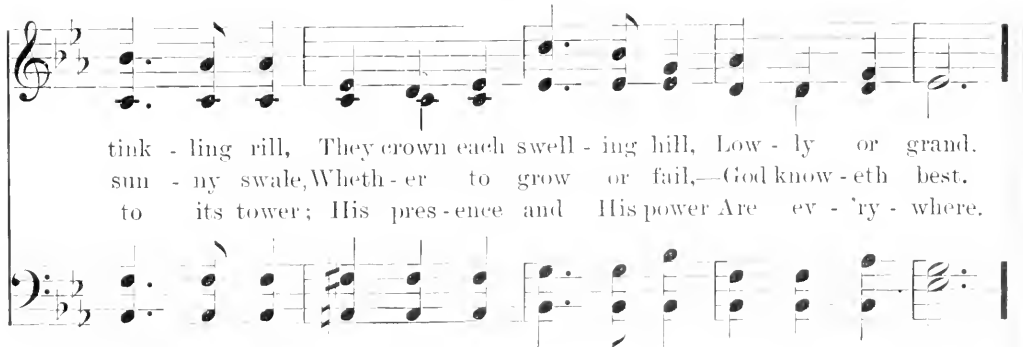
Author of "My Country, 'Tis of Thee."

Maestoso.


1. Joy for the stur - dy trees! Fanned by each fra - grant breeze,
 2. Plant them by stream or way, Plant where the chil - dren play,
 3. God will his bless - ing send; All things on Him de - pend;



Love - ly they stand! The song-birds o'er them thrill, They shade each
 And toil - ers rest; In ev - 'ry ver - dant vale, On ev - 'ry
 His lov - ing care clings to each leaf and flow'r Like i - vy



tink - ling rill, They crown each swell - ing hill, Low - ly or grand,
 sun - ny swale, Wheth - er to grow or fail,—God know - eth best.
 to its tower; His pres - ence and His power Are ev - 'ry - where.

From "Academy Song Book," Ginn & Co.

TREE SONG.

Mrs. ORMISTON CHANT.

Allegro.

1. The trees are wav - ing to and fro, So are we, so are we, Be -
 2. The trees are point - ing to the sky, So are we, so are we, They
 3. They keep their place by each firm root, So will we, so will we, Keep

neath the wild wind bend - ing low, So do we, as you see. Oh,
 hold their grace - ful heads up high, So will we, as you see. Oh,
 place with firm - ly plant - ed foot, As you see, as you see. Oh,

may we grow like hap - py trees, In shad - ow or in sun, To

*cres.**ff*

bless the world, to help, and please, Till our life - work is done.

THE GRAND OLD TREES.

Journal of Education.

GEORGE T. GOLDTHWAITE.

1. We love the grand old trees, With the oak, their roy - ai
 2. We love the grand old trees, The ce - dar bright a - bove the
 3. We love the grand old trees, The tu - tip branch - ing broad and

king, The ma - ple, for - est queen, We to her our hom - age bring.
 snow, The pop - lar straight and tall, And the wil - low weep - ing low.
 high, The beach with shin - ing robe, And the birch so sweet and shy.

And the elm with state - ly form, Long with - stand - ing wind and storm, The
 But - ter - nut and wal - nut too, Hick - o - ry, so staunch and true, The
 A - ged chest - nuts, fair to see, Hol - ly bright with Christmas glee, And

pine, low whis - p'ring to the breeze, We love the grand old trees!
 bass-wood bloom - ing for the bees, We love the grand old trees!
 lau - rel crown for vic - to - ries, We love the grand old trees!

NOTE. The Bass may be omitted.



Photo. from Report, Commissioner of Forestry, 1909.

A row of White Pines 12 to 23 inches in diameter breast high, planted about 50 years ago in Gloeester, by Ara Hawkins.

THE SECRET.

“ ‘Preserve your forests, in them lies your wealth;
They are better than gold, for riches untold
Cannot buy what they'll give you in comfort and health,
Their thirsty roots will drink in the rain
That might cause your rivers to overflow,
And they'll store it up till the leaves breathe it forth,
To temper the heat of the summer glow.’ ”

“ ‘When down from the North the wind rides forth,
Your friends, the trees, will break its power;
In their branches, in spring, the birds will sing,
They will shelter each delicate wind-blown flower’
Now the secret is this,—bear it well in mind,
No matter how urgent may be your case,—
‘Never lay your axe to the root of a tree
Till you've planted another to take its place.’ ”

—Lillie Southgate

BROWN UNIVERSITY LIBRARIES



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